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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/820,074

04/07/2004

Charles L. Gray JR.

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SEED INTELLECTUAL PROPERTY LAW GROUP PLLC

701 FIFTH AVENUE

SUITE 5400

SEATTLE, WA 98104-7092

EXAMINER

HAMO, PATRICK

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

08/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/820,074	Applicant(s) GRAY ET AL.	
	Examiner PATRICK HAMO	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-17 is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to amendments filed on April 30, 2008.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Valentin, 6,406,271 in view of Umeda et al., 6,186,748.

Valentin discloses a valve plate 16 for a swash plate piston pump, the valve plate comprising first 73 and second 74 kidney-shaped semi-circular ports that define inner and outer circumferences of an annular region and first 75 and second 76 compensating ports at top-dead center 41 and bottom-dead center 42 positions, respectively, and are in fluid communication with each other (col. 12, ll.55-56), the first and second ports configured to be selectively coupled to high-and low-pressure fluid sources or low- and high-pressure fluid sources respectively.

Valentin does not disclose that the first and second pressure relief ports are located substantially outside the annular region.

However, Umeda teaches a piston pump with a valving element 1 with bypass ports M1 and M2 offset from the primary annular region defined by suction and

Art Unit: 3746

discharge ports S and T. To access these ports offset from the annular region, the cylinders are provided with a notch e that communicates with the point at or near top- and bottom-dead center. Because both Valentin and Umeda teach pumping systems with rotating barrels of cylinders and valve plates, it would have been obvious to substitute the notched cylinder and offset bypass of Umeda for the compensating ports of Valentin in order to achieve the predictable result of regulating and maintaining within acceptable bounds the pressures within the cylinders.

Allowable Subject Matter

Claims 4-9 and 11-17 are allowed.

Response to Arguments

Applicant's arguments with respect to claim 11 have been fully considered and are persuasive. The rejection of claims 11-16 has been withdrawn.

Applicant's arguments with respect to claims 1 and 2 have been fully considered but they are not persuasive. In regards to applicant's arguments pertaining to claims 1 and 2, the proposed combination of Valentin with Umeda pertains to the change of shape of parts in Valentin, particularly the first 75 and second 76 compensating ports of the valve plate and the corresponding cylinders. Applicant argues for a number of reasons that the combination is improper based on Valentin teaching away from combination with Umeda because Umeda delays the pressure change and increases leakage, which renders Valentin unsatisfactory for its intended purpose, and that it would not have been obvious to one of ordinary skill to modify the bypass ports of Umeda to communicate with each other.

However, the examiner asserts the validity of the rejection of claims 1 and 2 by pointing out that the Valentin reference is substantially the same as the claimed invention of claims 1 and 2 except for the sole difference being the positioning of the compensation ports. With respect to the positioning of said ports, the examiner relied on a teaching from Umeda that taught ports, admittedly different from the ports of Valentin in that they act as bypass ports instead of compensating ports communicating with one

Art Unit: 3746

another, but ports nonetheless that are shaped such that they are outside an annular region with corresponding notches in cylinders to communicate with these ports. The modification of Valentin with Umeda then constitutes a simple change of shape, which has been found to be a choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the claimed shape was significant. See *In re Dailey*, 357 F. 2d 669, 149 USPQ 47 (CCPA 1966).

Furthermore, applicant argues that the ports M1 and M2 are not located substantially outside of the annular region and that they are not positioned at top-dead-center and bottom-dead-center. The applicant relies on the drawings, figs. 4B and 4C specifically, to argue that ports M1 and M2 are not completely outside the annular ring. Examiner agrees that this is indisputable. However, the degree to which the ports are outside the annular region is undisclosed. The examiner argues however that the necessity of notches "e" to communicate with the ports provides evidence that The ports are substantially outside of the annular region in addition to being at least partially within it, thereby necessitating extended portions of the cylinder in the form of notches "e" to communicate therewith. In response to the argument that ports M1 and M2 are not positioned at top-dead-center and bottom-dead-center, the examiner agrees but believes that one of ordinary skill in the art in combining Valentin and Umeda would have kept the ports at top- and bottom-dead center as taught by Valentin when using the teaching of the changed shape of ports taught by Umeda.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK HAMO whose telephone number is (571)272-3492. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3746

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/
Supervisory Patent Examiner, Art
Unit 3746

/Patrick Hamo/
Patent Examiner, AU 3746